

REMARKS

Claims 1-13 are pending in the subject application. By the instant amendment, claim 11 is amended to correct an informality noted by the Examiner and to clarify antecedent basis of a term. No new matter is added by the instant amendment as support for the amendment may be found in the original specification, e.g., at paragraph [0050].

Claims 1, 11 and 13 are independent.

Applicants appreciate the Examiner's acknowledgement of applicants' claim for foreign priority and receipt of a certified copy of the priority document.

Applicants appreciate the Examiner's indication of allowable subject matter in claims 11 and 12.

Applicants further appreciate the Examiner's consideration of Information Disclosure Statements filed March 1, 2004, and April 8, 2004.

Applicants request, in the next Office action, that the Examiner indicate the acceptability of the drawing figures filed on September 22, 2003.

Claims 1-13 are presented to the Examiner for further prosecution on the merits.

A. Introduction

In the outstanding Office action, the Examiner rejected claims 1-10 and 13 under 35 U.S.C. § 102(b) as being anticipated by J. Chen et al., "A New Approach to Near-Infrared Spectral Data Analysis Using Independent Component Analysis," J. Chem. Inf. Comp. Sci. 2001, 41, pp. 992-1001 ("the Chen et al. reference"), and objected to claims 11 and 12 in view of an informality, but indicated that claims 11 and 12 would be allowable over the prior art of record if the objection thereto is overcome.

B. Asserted Anticipation Rejection of Claims 1-10 and 13

In the outstanding Office action, the Examiner rejected claims 1-10 and 13 under 35 U.S.C. § 102(b) as being anticipated by the Chen et al. reference. This rejection is respectfully traversed for at least the following reasons.

It is respectfully submitted that the Chen et al. reference fails to disclose or suggest the present invention as presently recited in independent claims 1 and 13. More specifically, the Chen et al. reference fails to disclose or suggest employing an independent component analysis (ICA) in conjunction with a principal component analysis (PCA), as recited in independent claim 1. Similarly, the Chen et al. reference fails to disclose or suggest an apparatus including a PCA unit operating in conjunction with an ICA unit, as recited in independent claim 13.

In the present invention, an ICA is employed in conjunction with a PCA, i.e., both an ICA and a PCA are employed, in a spectral data analysis. On the contrary, the Chen et al. reference teaches employing only an ICA *instead of* employing a PCA in a spectral data analysis. *See the Chen et al. reference, at section 3, p. 994.* More specifically, in the present invention, an ICA of scores obtained using a PCA of the spectra of mixtures is performed. In the Chen et al. reference, however, an ICA of the spectra of mixtures, i.e., a second-derivative spectra of mixtures, is performed. *See the Chen et al. reference, at section 4, p. 998.*

Accordingly, the Chen et al. reference fails to disclose or suggest employing an ICA of scores obtained using a PCA, as taught and claimed in the subject application.

By way of further distinction, in the Chen et al. reference, regression analysis is required for obtaining concentrations of the independent components, as shown in Equation 19. In the present invention, however, the concentrations of pure components are estimated without regression analysis.

Therefore, it is respectfully submitted that the Chen et al. reference fails to disclose or suggest a method or an apparatus, as presently recited in independent claims 1 or 13, respectively.

In view of the above distinctions between the present invention and the cited prior art reference, claims 1 and 13 are believed to be in condition for allowance, and a notice to such effect is respectfully requested. In addition, because the remaining claims, viz., claims 2-10, depend, directly or indirectly, from claim 1, claims 2-10 are believed to be similarly allowable as depending from an allowable base claim.

Accordingly, withdrawal of the rejection and favorable reconsideration of claims 1-10 and 13 are respectfully requested.

C. Asserted Objection to Claims 11 and 12

In the outstanding Office action, the Examiner objected to claims 11 and 12 in view of an informality in claim 11, but indicated that claims 11 and 12 would be allowable over the prior art of record if the objection is overcome. By the instant amendment, claim 11 is amended to correct the noted informality.

Accordingly, reconsideration and withdrawal of the objection of claims 11 and 12 are respectfully requested. Further, it is respectfully submitted that claims 11 and 12 are in condition for allowance, and a notice to that effect is requested.

D. Conclusion

Since the cited prior art reference neither anticipates nor renders obvious the subject invention as presently claimed, applicants respectfully submit that claims 1-13 are now in condition for allowance, and a notice to that effect is respectfully requested.

The remaining documents cited by the Examiner were not relied on to reject the claims. Therefore, no comments concerning these documents are considered necessary at this time.

Finally, if the Examiner believes that additional discussions or information might advance the prosecution of the instant application, the Examiner is invited to contact the undersigned at the telephone number listed below to expedite resolution of any outstanding issues.

In view of the foregoing amendments and remarks, reconsideration of this application is earnestly solicited, and an early and favorable further action upon all pending claims is hereby requested.

Respectfully submitted,

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**PETITION and**  
**DEPOSIT ACCOUNT CHARGE AUTHORIZATION**

This document and any concurrently filed papers are believed to be timely. Should any extension of the term be required, applicant hereby petitions the Director for such extension and requests that any applicable petition fee be charged to Deposit Account No. 50-1645.

If fee payment is enclosed, this amount is believed to be correct. However, the Director is hereby authorized to charge any deficiency or credit any overpayment to Deposit Account No. 50-1645.

Any additional fee(s) necessary to effect the proper and timely filing of the accompanying-papers may also be charged to Deposit Account No. 50-1645.